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Richard Dworek
General Manager
Environmental Affairs
and Air Management

April 22, 1996

Mr. Ronald J. Chleboski, Deputy Director
Bureau of Environmental Quality
Allegheny County Health Department
301 - 39th Street
Pittsburgh, PA 15201-1891

Dear Mr. Chleboski:

Please let me correct a verbiage (not a substantive) error that occurs on Page 4, paragraph 1 of my letter to you dated April 3, 1996.

The original chart referred to Exhibit 3, which we presented to you at our meeting on March 23, 1996, had the orangish-brown plot below the 0-point line when the hi-volume sampler was higher than TEOM. However, when Clairton's Chester Engineers attempted to improve the exhibit by including a narrative to better explain the data, they reversed the "above" and "below" lines with the latest Exhibit 3.

A "revised" April 3, 1996, letter is now enclosed for your information. (Please discard the originally drafted letter.) Again, there is no change to our position that, once the errors due to passive sampling were corrected, the data show that TEOM is reading higher than the hi-vol. I apologize if this caused any inconvenience.

Very truly yours,

R. Dworek

RD/d(4.182)

cc: T. Maslany
H. R. McCollum



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Richard Dworek
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April 3, 1996

(REVISED COPY -- revision on page 4)
4/22/96

Mr. Ronald J. Chleboski, Deputy Director
Bureau of Environmental Quality
Allegheny County Health Department
301 - 39th Street
Pittsburgh, PA 15201-1891

Dear Mr. Chleboski:

Thank you for inviting us to meet with you on March 23, 1996, and to discuss our viewpoints on various Clairton Works air-related issues. We believe that many key issues were discussed in a candid and professional manner and, in all probability, both sides have a better understanding of each other's interests and concerns. Subsequently, we discussed the salient items of the meeting with a number of our key stakeholders and the following comments, suggestions, and positions, are submitted for your review, consideration, and action.

1. First, let us emphasize that U. S. Steel Clairton Works, as demonstrated by recent environmental performance, is committed to protecting the environment and promoting programs that "base decisions on sound science and risk to public health and the environment."

As an example of our commitment, and, as mentioned at the March 23, 1996 meeting, we will continue to maintain spare COG desulfurization facilities, including operation of a redundant Claus unit. Operation of the redundant unit enables us to immediately handle full gas load in the event of a breakdown. We believe that the continuous operation of a redundant Claus unit is unprecedented for any industry in Allegheny County and for any coke plant in North America. We will also continue to go forward with our Continuous Improvement to the Environment (C.I.T.E.) training programs for all of our employees, which is unique for any industry in Allegheny County. The bottom line of these activities is the actual emission of H₂S-SO₂-sulfates (particulates) are 60 percent lower than the County's stringent emission standards.

By monitoring PM₁₀ and meteorology and by implementing a self-audit action plan to avoid potentially high, meteorologically driven community levels of PM₁₀, we will continue to conduct our own action plan (modeled after the "Ozone Action Plan") for particulates. Again, we think this plan is unprecedented for any industry in Allegheny County. (By the way, we discussed our Clairton Works PM₁₀ meteorological action plan at the recent FACA meeting in Alexandria, Virginia, with key national stakeholders from government, citizen groups, and industry, and the Clairton Works plan received very positive comments from the Chairman representing EPA.) Also, we will continue with additional control programs such as installation of the "big plug" doors, installation of cooling tower mist eliminators, and improved monitoring of stacks by voluntarily installing additional CEMS.

Finally, we will (at your suggestion) investigate improved exit velocity for the quenching towers servicing Batteries No. 1, 2, and 3 and Batteries No. 7, 8, and 9.

2. We have also given serious consideration to your comments about "credibility" of implementing County policies and programs, particularly the current PM₁₀ monitoring program near Clairton Works. We believe that the credibility of Allegheny County is above question. Consider the following:

- (a) From a national perspective, about 85 percent of the counties in the U.S.A. do not have any ozone and/or PM₁₀ monitors.
- (b) From a state perspective, in 1993, for example, Allegheny County did more PM₁₀ sampling in the Liberty Borough/Clairton area than PaDEP did throughout Pennsylvania.
- (c) From a county perspective, there are "thousands" more PM₁₀ samples taken in the Liberty Borough/Clairton area than any other area of the County.
- (d) The County has spent more dollars, more manpower, and engaged more of a diverse representation (government, citizens, industry) with the four-year PM₁₀ Liberty Borough/Clairton study than probably any other study in EPA Region III.

3. However, to further assist the County's response to potential issues of credibility, U. S. Steel Clairton Works will further agree and commit that it will not utilize coal on boilers at Clairton unless there is a fuel emergency and U. S. Steel has approval of the County for such emergency use. Based on this commitment, we believe that the County's modeling will show that the projected 24-hour "hot spot" for the five-community Liberty non-attainment area is located in Lincoln Borough -- not at the current Lincoln monitor site but near the intersection of Bellebridge and Port Vue Roads (See attached **Exhibit 1**).

4. The above commitment (Item 3) is offered because it is generally known that the County has recently been requested by the industrial property owner to move the current Lincoln monitor by April 1996. It is our very strong belief that the best place to relocate the monitor is at the highest predicted 24-hour hot-spot location, which is near the intersection of Bellebridge and Port Vue Roads. This location is the correct site, since it is based on "sound science and risk to public health." The "sound science" utilizes the results of the County's \$1.5 million, four-year modeling study to locate the "24-hour" spot. (Please consider that this is not the USS study, but the County's study, that had input from government, citizens, and industry.)

This location is also the correct location because it considers "risk to public health," since it is located near "inhabited buildings," and is the 24-hour "hot spot," as recommended by the EPA siting criteria for monitors. No other location in Lincoln meets these criteria. To place the monitor in any other location would not be "credible."

5. As previously mentioned, we believe that "credible" environmental decisions are ones that are based on "sound science and risk to public health." With this in mind, it is extremely important to point out the "flawed" PM₁₀ high-volume data that existed at Lincoln prior to the April 12, 1995 commitment by the County to "change the hi-vol filters at the Lincoln Station on a daily basis--Mondays through Friday, except holidays." (See attached **Exhibit 2**, April 12, 1995 letter from Ron Chleboski to Dick Dworek, Item 3). Also, in the County's comments to EPA with respect to the attainment designation of the Liberty Borough/Clairton area, the problems of passive sampling were acknowledged and highlighted by the County.

The significance of the passive sampling problem can be emphasized by referring to the attached chart (**Exhibit 3**). The plot shows Lincoln hi-vol (blue) and Lincoln TEOM continuous (green) data and, most important, the daily numerical difference between Lincoln hi-vol and Lincoln TEOM continuous data (orangish-brown plot). From the enclosed plot, it can be seen that, for 1993, 1994, and the first quarter of 1995, there were consistently and significantly higher readings for the hi-vol sampler, as compared to the TEOM-continuous monitor. This is shown by the orangish-brown plot **above** the 0-point line. However, this orangish-brown plot dramatically changes from **above** the line (hi-vol greater than TEOM continuous) to **below** the line (hi-vol less than TEOM continuous) at about the same time that U. S. Steel received the April 12, 1995 letter from the County, indicating that the County was taking immediate steps to reduce the inherent biased high values of the hi-vol, due to passive buildup. From April 12, 1995, through the rest of the year, almost all data now show that the TEOM continuous sampler is consistently higher than the hi-vol. The significance of this is tremendous, and is highlighted as follows:

- (a) After correcting for hi-vol passive buildup, the data now show that hi-vol reads lower than TEOM continuous sampling.
- (b) The TEOM-continuous sampler at Lincoln has always shown attainment, i.e., attainment has been demonstrated for the years 1993, 1994, 1995, and the first three months of 1996.
- (c) Since the hi-vol (after correcting for passive buildup) is now reading lower than continuous, and continuous has always been in attainment, then correcting for flawed hi-vol data logically leads to the conclusion that the Lincoln site is now and has been "attainment."

The comparison data for the above can be summarized as follows:

<u>Micrograms/Meter Cubed</u>			
	<u>Hi-Vol</u>	<u>TEOM (Continuous)</u>	<u>Comment</u>
1993	47	42	Hi-vol <u>higher</u> than TEOM due to passive buildup.
1994	53	47	Hi-vol <u>higher</u> than TEOM due to passive buildup.
1995	42	43	Hi-vol <u>lower</u> than TEOM due to correction of passive buildup.

The annual data demonstrate attainment!

With respect to the 24-hour standard, the TEOM continuous sampler has always demonstrated attainment, as indicated by only two values over 150 $\mu\text{g}/\text{m}^3$ for the period 1993, 1994, 1995, and 1996, and is reported as follows:

<u>TEOM 24-Hour Micrograms/m³ values over 150 standard</u>	
1993	195 (5/10/93)
1994	None
1995	163 (3/13/95)
1996	None
The TEOM continuous sampler has always demonstrated attainment with the 24-hour standard.	

In summary, based on the Lincoln TEOM continuous data and eliminating flawed hi-vol data, the Lincoln location should logically be deemed as "attainment." Likewise, attainment has been demonstrated at Liberty Borough, Glassport, Bellebridge, Lincoln Farm, and Bunola, all sampling by the County. In addition, "spot" sampling at two other Lincoln locations by U. S. Steel in 1995 also project attainment.

The bottom line is that "sound science" and "credible" data mandate that the Liberty Borough/Clairton area now be deemed attainment.

Mr. Ronald J. Chlebowski
April 3, 1996
Page 6

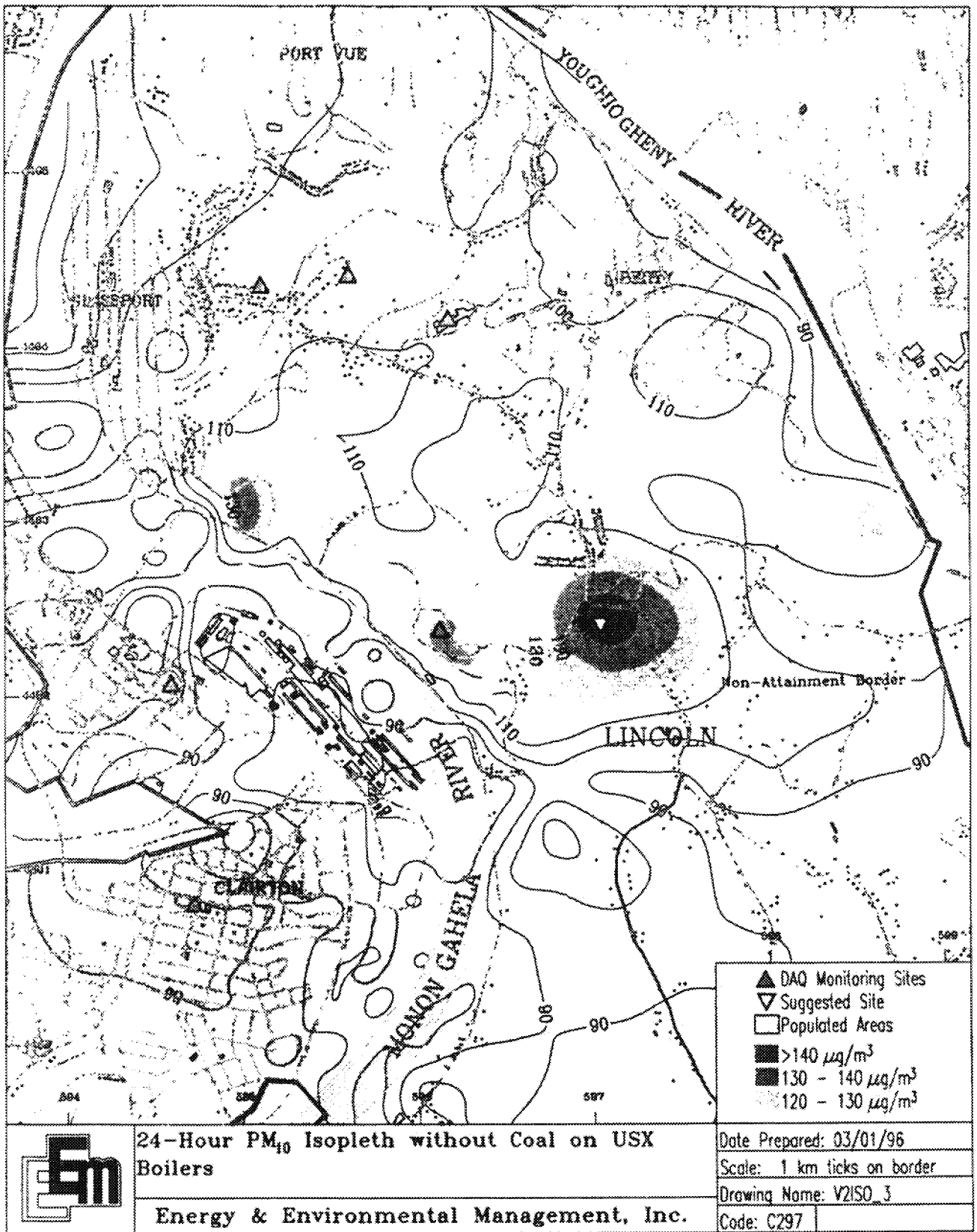
Our recommendation is that the County immediately notify EPA of the attainment status of the Liberty Borough/Clairton area.

Again, thank you for inviting us to meet with you on March 23, 1996. If you have any questions or wish to further discuss the matter, please advise.

Very truly yours,

R. D. Work

RD/d(4.174)



Allegheny County Health Department

COUNTY COMMISSIONERS

Tom Foerster
Chairman

Pete Flaherty

Larry Dunn



Bruce W. Dixon, M.D.
Director

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April 12, 1995

Mr. Richard Dworek, General Manager
Environmental Affairs and Air Management
U.S. Steel
600 Grant Street
Pittsburgh, Pennsylvania 15219-2749

Dear Mr. ^{Dworek}Dworek:

As a follow-up to our meeting of February 16, 1995, regarding PM-10 monitoring at the Lincoln monitoring station, please be advised as follows:

1. The Division of Air Quality ("Division") has been and will continue reporting both continuous (real time) and hi-vol PM-10 data at all stations, including stations where both a hi-vol and a continuous monitor are installed in the Division's monthly air quality report.
2. All of the hi-vol samplers utilized at the Lincoln station have been equipped with Wedging inlet heads.
3. The Division has begun changing the hi-vol filters at the Lincoln station on a daily basis Mondays through Fridays, except holidays. Pending approval by the Director, this daily filter changing will be extended to weekends and holidays. This will limit the period of passive exposure of the filters to a maximum of 24 hours.

April 12, 1995

4. The Division will take action to formalize an agreement to provide electrical power to the U.S. Steel monitoring station at the Lincoln site. Mr. Harilal L. Patel will coordinate this action.
5. The U.S. EPA has advised the Division (see attached letter of April 5, 1995) that data from a back-up monitor may be substituted for missing data from a primary unit without requiring the secondary unit data to be used for air quality determination other than for those periods of substitution. The Division will, therefore, install (by Thursday, April 20, 1995) a second continuous PM-10 monitor at the Lincoln station and substitute data from this unit for missing data from the primary unit.

Should you desire any further information on this matter, please contact me at your convenience.

Sincerely yours,



Ronald J. Chleboski, Deputy Director
Bureau of Environmental Quality

RJC:mms

Attachment

CC: Bruce W. Dixon, M.D. (with attachment)
Charles J. Goetz (with attachment)
Harilal L. Patel (with attachment)
Roger C. Westman (with attachment)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

Mr. Ronald Chleboski, Deputy Director
Bureau of Environmental Quality
Allegheny County Health Department
301 39th Street
Pittsburgh, Pennsylvania 15201

APR 05 1995

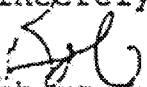
Dear Ron:

This letter is in response to your inquiry on data substitution where two continuous PM-10 monitors are operating at one site. This is essentially an issue involving the use of data from a collocated sampler when the primary sampler is not operating due to maintenance or quality assurance activities. This issue is addressed in detail in 40 CFR 50 and 40 CFR 58 and in an EPA policy memorandum on the use of collocated PM-10 data from William Laxton (see attachment).

If the primary sampler was not operating due to maintenance or quality assurance activities it is permitted to substitute data from the collocated, reference sampler in order to maximize data completeness for that particular location. See the attached memorandum for more specifics. Please bear in mind that this memorandum addresses the issue in 1989 - prior to the advent of continuous PM-10 instruments. It is, nevertheless, still the official policy as we obtained verbal concurrence from OAQPS.

If you have any questions or need additional information, please contact me at 215-597-9378 or Victor Guide at 215-597-1602.

Sincerely,


Robert Kramer
Chief, Environmental Monitoring &
Surveillance Branch

Attachment



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

24 JUL 1989

MEMORANDUM

SUBJECT: Use of Collocated PM₁₀ Data

FROM: William G. Laxton, Director
Technical Support Division, OAQPS (MD-14)

William G. Laxton

TO: Director, Environmental Services Division, Regions I, III, V, VI,
VII, VIII & X
Director, Air & Waste Management Division, Region II
Director, Air, Pesticides, & Toxics Management Division, Region IV
Director, Air Management Division, Region IX

This memo formally transmits supplementary guidance on the use of PM₁₀ data produced at collocated PM₁₀ samplers. The new guidance is intended to clarify any potential ambiguities in 40 CFR 50 and 40 CFR 58 together with the November 21, 1988 OAQPS memorandum entitled, "Revision to Policy on the Use of PM₁₀ Measurement Data."

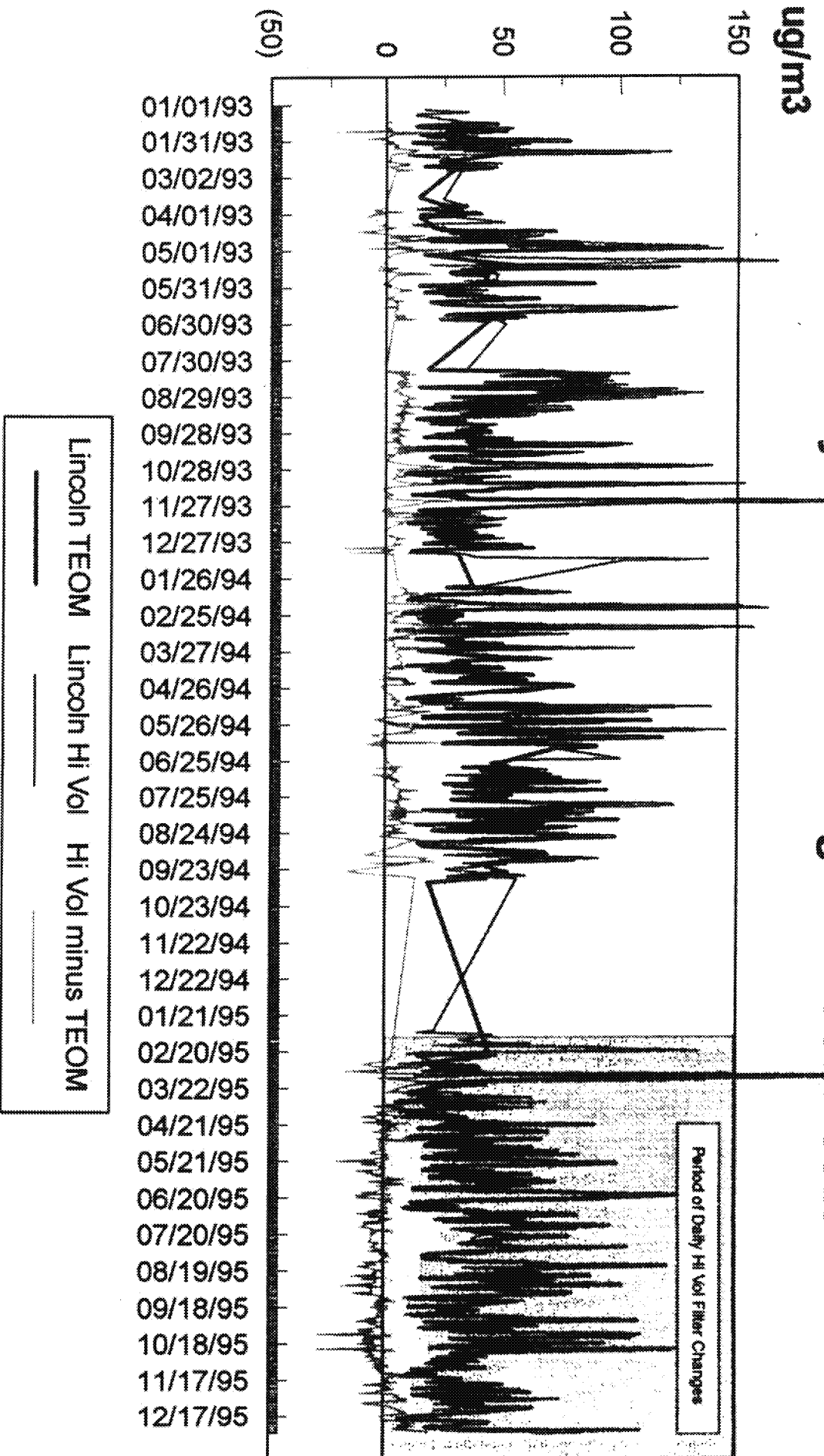
Two issues are presented: The first involves the independent use of collocated PM₁₀ data for attainment assessment. The second related issue involves the use of data from a collocated sampler when the primary sampler is not operating. The following discussion summarizes our guidance on both of these issues. The details of this memo were previously transmitted to the NAMS Coordinators, PM₁₀ Monitoring Contacts and PM₁₀ SIP Contacts as cc's to a June 13, 1989 memo from Neil Frank of my staff to Carol Bohnenkamp of Region IX.

Independent Use of PM₁₀ Data for Attainment Assessment

The November 21, 1988 policy memorandum states that:

- a. If multiple samplers are collocated for data quality assessment purposes, similar sampler types must be used and one sampler must be designated a priori (as the primary sampler) for data reporting purposes.
- b. Monitoring stations shall be used separately to assess attainment or nonattainment with the National Ambient Air Quality Standards (NAAQS).

County PM10 Monitoring Data at Lincoln



When the "Hi Vol minus TEOM" line is greater than zero, the Hi Vol result is higher. When the "Hi Vol minus TEOM" line is less than zero, the TEOM result is greater. When the "Hi Vol minus TEOM" line is equal to zero, both values are equal. The "Hi Vol minus TEOM" line charted above represents only those days when results from both instruments are available.

